

1. The amendment filed on April 10, 2012 has been entered.
2. The substitute specification filed April 10, 2012 has not been entered because it does not conform to 37 CFR 1.125(b) and (c). A marked-up copy of the substitute specification has not been supplied (in addition to the clean copy).
3. The drawings were received on April 10, 2012. These drawings are not accepted by the Examiner because the drawings are not in compliance with 37 CFR 1.84 as required by 37 CFR 1.121(d). For example, in FIG. 3, the lines are not uniformly thick and well defined, clean, and black as required by 37 CFR 1.84(l). In addition, FIG. 3 shows too much dark stippling that obscures some data. Please see Form PTO-948 attached to the Office action on November 10, 2011. Applicant is respectfully suggested to use the formal drawing symbols for draftsman in MPEP § 608.02. For examples of compliant drawings, please see the "Guide for the Preparation of Patent Drawings" available from the USPTO web site at www.uspto.gov.
4. The *original* drawings are objected to because of the reasons, *e.g.*, listed below:
 - (a) 37 CFR 1.84(p)(4) states: "The same part of an invention appearing in more than one view of the drawing *must* always be designated by the same reference character, and the same reference character *must* never be used to designate different parts." However, the same part such as the slave arm is indicated by different reference characters 1, 3, and/or 5 as seen on page 4 of the substitute specification filed on September 20, 2007;
 - (b) Each part of the claimed invention, such as, the stationary portions, the mobile portions, and the groove in claims 4, 7, and 8 should be designated by a reference character. Please see MPEP §§ 608.01(o) and (g); and/or

(c) The drawings are not in compliance with 37 CFR 1.84. Please see Form PTO-948 attached to the Office action on November 10, 2011.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The disclosure as seen in the substitute specification filed on September 20, 2007 is objected to because of the informalities, *inter alia*, listed below:

(a) The specification should have appropriate headings as provided in 37 CFR 1.77(b);

(b) Each part of the claimed invention, such as, the stationary portions, the mobile portions, and the groove in claims 4, 7, and 8 should be designated by a reference character. Please see MPEP §§ 608.01(o) and (g); and/or

(c) The same part such as the slave arm must not be indicated by different reference characters 1, 3, and 5. See 37 CFR 1.84(p)(4).

Appropriate correction is required.

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 1 and 4-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

(a) Claims 7-9 and 12 are indefinite because these claims are dependent upon the canceled claim 2 or 3.

(b) No clear antecedent is seen for the terms, such as, “them” in claim 1; “it” in claims 4, 7, and 8; and “the *first* segment” in claims 10 and 11.

8. Claims 1 and 4-15 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

9. As allowable subject matter has been indicated, applicant’s reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

10. The prior art made of record and not relied upon is considered pertinent to applicant’s disclosure: Haaker et al. (grooved drum 75, see col. 4, ll. 15-33).

11. Applicant’s arguments filed April 10, 2012 have been fully considered but they are not persuasive.

The substitute specification and the replacement drawings have not been entered for the reasons set forth above. In addition, the claims are remained to be indefinite as seen in the rejection above.

In view of the foregoing, Applicant's request to pass the case to allowance is respectfully declined.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh Luong whose telephone number is (571)272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh Luong/
Primary Examiner, Art Unit 3656